

Stock Market Perspective: Enhanced Indexing Revisited

Every so often I write about exchange traded funds (ETFs) designed to improve on the S&P 500 Index by not being weighted by the market capitalization of its components. It has been three years since I last did that, so in this issue I will explore a few in depth.

The “problem” with the index being weighted by market cap is that the largest stocks have the most influence on the index. As of the end of May, the ten largest were over 20% of the index, so the other 490 accounted for less than 80% of the performance of the index. The very smallest ones each were a very small fraction of a percent of the total capitalization.

Critics of this weighting often say that the largest stocks have gone up the most, so there is a better chance that they are “overvalued” in comparison to those that have not performed as well and consequently have less influence on the index. Apple is about 4.5% of the capitalization, and for the last couple of years its increasing weight in the index has been beneficial. There are now some reports that remove it from some the calculations of the index’s performance and characteristics such as earnings growth. Apple may be overvalued, but those that would say so based on its market capitalization likely would have had that opinion when its price was much lower.

The second largest stock is Exxon Mobil at a little over 3%. Numbers three through ten, each of which has between 1.4% and 1.9% of the weight at of the end of May are, in decreasing order, IBM, Microsoft, AT&T, GE, Chevron, Proctor & Gamble, Johnson & Johnson, and Coca-Cola.

Several alternative “index” funds, most of which are weighted by “fundamental”

analytical measures, have been around for five or more years. That period has seen both very weak and very strong markets, so comparisons will be meaningful. To that end, we will look at the performance of the S&P 500 “spider”, ticker SPY, which “owns” and closely tracks the index, and five “enhanced index” ETFs.

Only one of these is actually an index fund in that it does not incorporate any analytical information about its components. That ETF is the Guggenheim/Rydex S&P 500 Equal Weight (ticker RSP). Every quarter, it rebalances its holdings so that each stock is 0.2%, one five hundredth, of the portfolio. It is the only one of the alternatives discussed here that owns the same 500 stocks as SPY does.

Professor Jeremy Siegel of the Wharton School has been one of the most outspoken promoters of “fundamental indexing.” He advocates using indicators such as earnings or dividends to determine the relative weighting of the stocks in the portfolio. He believes that approach will avoid overexposure to overvalued issues and give more weight to those that are more likely to perform better than the index. He is an advisor to the Wisdom Tree family of funds

An “enhanced index” exchange traded fund may be a good alternative to buying and holding an S&P 500 index fund.

that was created to implement his ideas among others. I include two of its offerings in the

analysis: Wisdom Tree Earnings 500 (EPS) and LargeCap Dividend (DLN).

The 500 in the EPS name does not mean it holds all of the S&P’s stocks. It holds that number of the largest market capitalization stocks with “core earnings,” an S&P metric based on continuing operations, and weights them so that those “with greater earnings generally have larger weights” according to the Wisdom Tree web site (wisdomtree.com).

DLN holds 300 of the largest dividend paying stocks. (Apple until recently has not had a regular dividend so it would not be held.) The weights are based on the relative total amount of the dividends based on the most recent declared amount. In effect, instead of the stocks' prices in the market capitalization computations, the dividends per share are used.

The other two funds we will look at are also based on dividends, but take a different approach. The Vanguard Dividend Appreciation ETF (VIG) is market cap weighted and holds firms that have increased their dividends for at least ten straight years. There are also additional conditions for liquidity and financial strength. As of the end of May, the fund holds 133 stocks. The SPDR S&P Dividend fund (SDY) holds companies that have increased their dividends for 25 years and may add some others. It weights based on the dividend yield and currently holds 61 stocks.

EPS, DLN, VIG, and SDY are not really index funds in the usually understood sense. They all claim to implement an index, but the ones they follow are not generally considered as such. In effect, these funds are passively managed according to the formulas that define the indices they track. Philosophically, they and RSP are similar to the SPY and the traditional index funds in that no attempt is made to pick "winners" and trade from one to another, typically several times a year, when one stock falls out of favor and another becomes more attractive.

	YEARLY RETURNS					
	SPY	RSP	DLN	EPS	VIG	SDY
2007-08	-5.3%	-10.6%	-6.6%	-5.1%	0.4%	-13.1%
2008-09	-38.2%	-41.0%	-41.3%	-37.9%	-31.8%	-31.2%
2009-10	50.1%	74.1%	47.0%	50.6%	41.5%	52.1%
2010-11	15.6%	20.3%	16.7%	13.9%	16.2%	13.7%
2011-12	8.4%	4.3%	12.8%	10.4%	7.8%	8.1%
2nd, 3rd, 4th quarters of first year, 1st of second						

The most recently started of these is EPS, which began trading in February 2007. That means we have five full years of data. The first table shows how each performed in the "years" consisting of the second, third, and fourth quarters of one year and the first quarter of the following year. Since stocks bottomed out in March 2009, 2008-09 was a very bad year for them followed by exceptionally large gains in 2009-10.

There are some notable differences in the table. In 2007-08, VIG had a small gain while the others showed losses. Curiously, SDY, which uses a similar selection methodology as VIG had the worst loss. In general, RSP makes a larger move in the same direction as SPY although that was not the case in 2011-12. Also, VIG and SDY tend to fall less in down markets.

The second table shows some statistics for the five year period and the current expense ratio, yields, and price to earnings ratios of the portfolios (as of May 31 from yahoo.com). Here are explanations of some of the items in the table.

Maximum Drawdown: The largest drop from a high value to a subsequent low value. All of them were in March 2009 as the decline that started in the summer of 2007 came to an end.

	SPY	RSP	DLN	EPS	VIG	SDY
Annualized Return	2.0%	2.9%	1.2%	2.2%	3.9%	2.3%
Maximum Drawdown	-55.2%	-59.9%	-57.8%	-54.4%	-46.8%	-54.8%
Negative Deviation	4.0%	4.7%	4.0%	3.9%	3.4%	4.1%
Return/Risk	0.49	0.62	0.30	0.57	1.17	0.56
Alpha	0.00%	0.51%	-0.25%	0.20%	0.76%	0.33%
Beta	1.00	1.08	0.93	0.86	0.83	0.95
Expense Ratio	0.09%	0.40%	0.28%	0.28%	0.13%	0.36%
Current Yield	2.01%	1.35%	2.73%	1.95%	2.10%	3.23%
Price/Earnings	13	14	13	12	15	15

Negative Deviation: Like drawdown, this is a measure of risk. Unlike drawdown, it takes into account performance over the entire period. It is based on the monthly percent changes of the ETFs. It is similar to the better known standard deviation, but counts only the down months since hardly anyone objects to volatility when stocks are rising. Like the standard deviation, lower values indicate less risk.

Return/Risk: The annualized return divided by the negative deviation. It is similar to the well known Sharpe Ratio, but I have not subtracted the risk free rate of return from the funds' performance.

Alpha, Beta: These are standard investment measures that result from the linear regression, the best straight line fit from a statistical viewpoint, of the daily percent changes of each ETF compared to those of SPY. Beta is the slope of the line and is a measure of relative volatility. RSP has a beta of 1.08, so it is 8%

more volatile than SPY. The others are less volatile. Alpha is the y-intercept of the line and positive values indicate that the ETF "adds value" compared to SPY after adjusting for relative volatility. Only

DLN does not do so. Since SPY is the base case, its alpha is zero and its beta is one.

VIG is the most attractive of these on a buy and hold basis except with regard to dividend income where SDY excels. All of the drawdowns are quite severe, particularly if one is trying to reduce risk meaningfully from that of the broad market. It should not be a surprise to you that I do not advocate buying and holding any of these funds. I want to avoid the large drops that are virtually inevitable from that approach.

That leaves unanswered the question of which of these funds or possibly another one is the best choice to own when the models I use to indicate it is time to own a broad market fund. My past analysis has pointed to RSP for that purpose. I haven't updated the analysis, but will do so after the current buy signal ends and before the next one occurs.